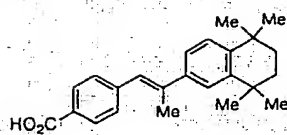
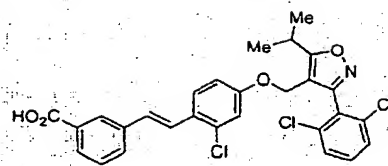


1: CDCA (low affinity endogenous agonist)



2: TTNPB (low affinity agonist; $EC_{50} > 1 \mu M$)



3: GW 4064 (high affinity agonist; $EC_{50} = 80 \text{ nM}$)^a

FIGURE 1

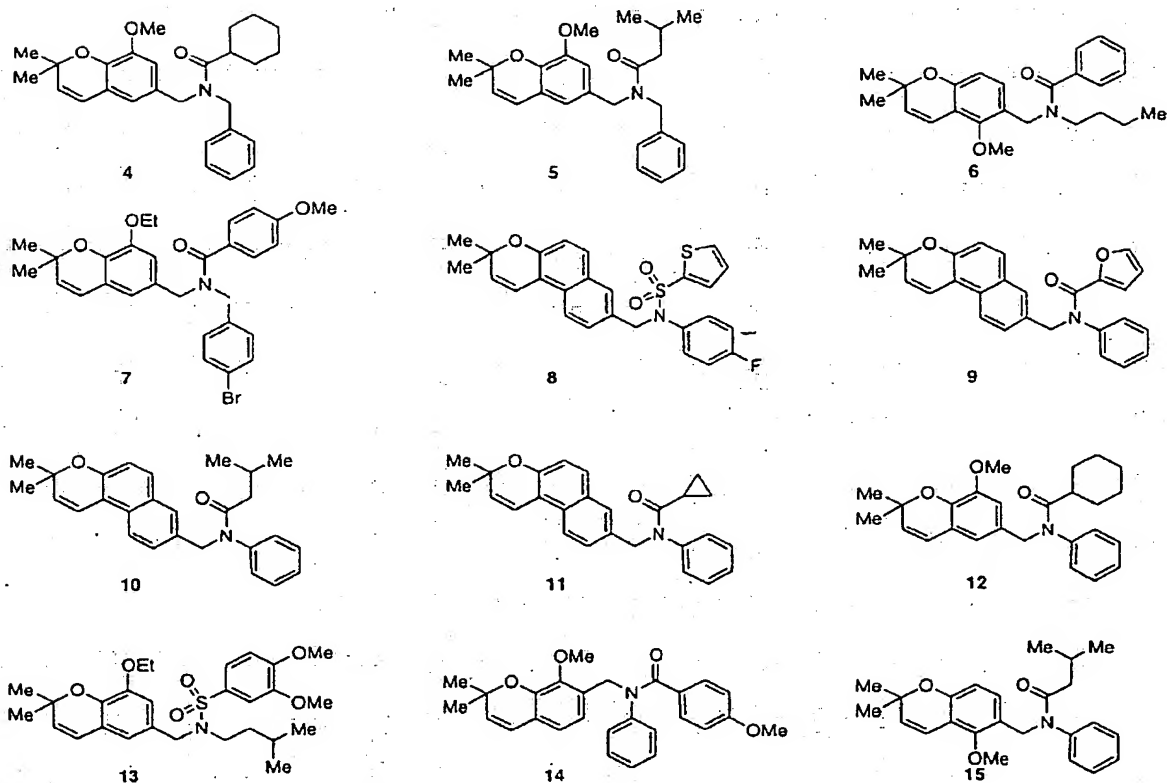


FIGURE 2A

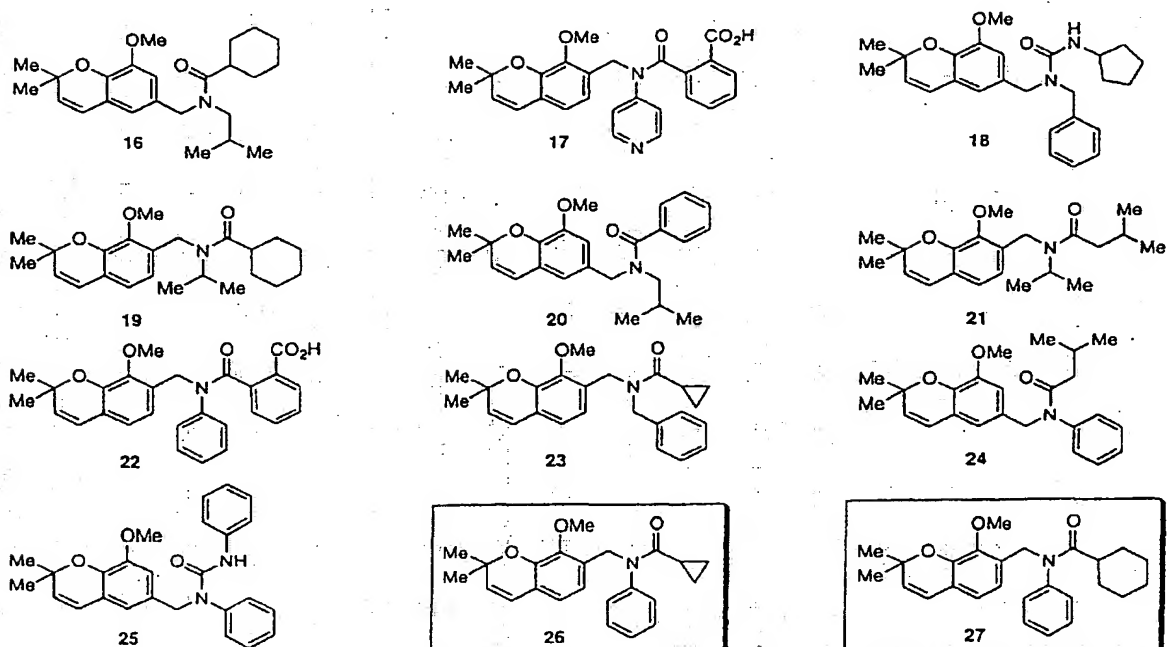


FIGURE 2B

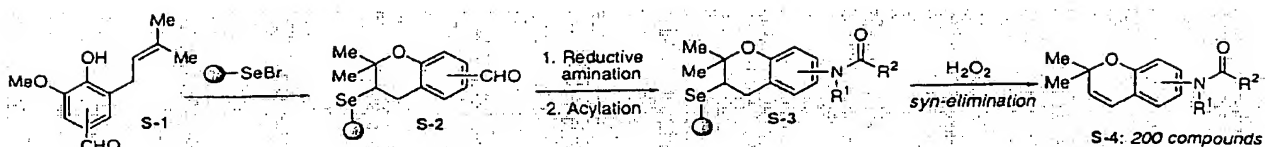


FIGURE 3A

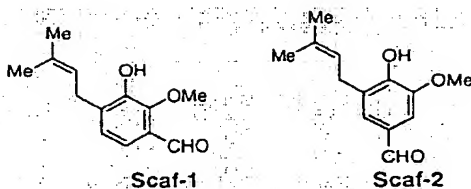


FIGURE 3B

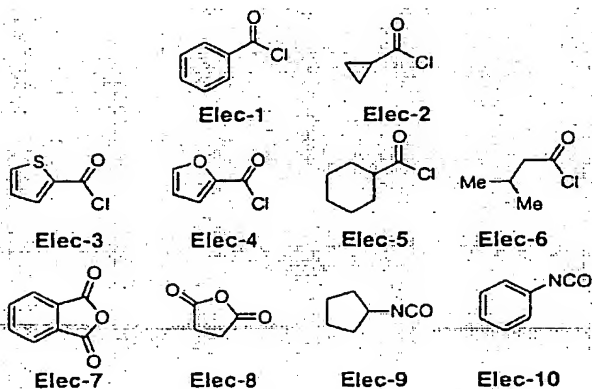


FIGURE 3C

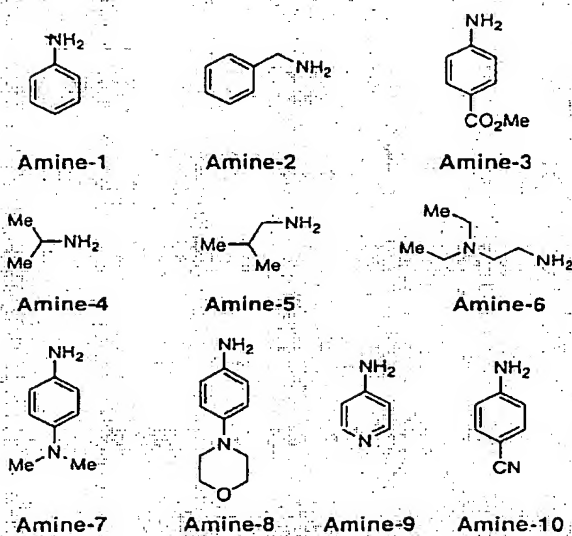


FIGURE 3D

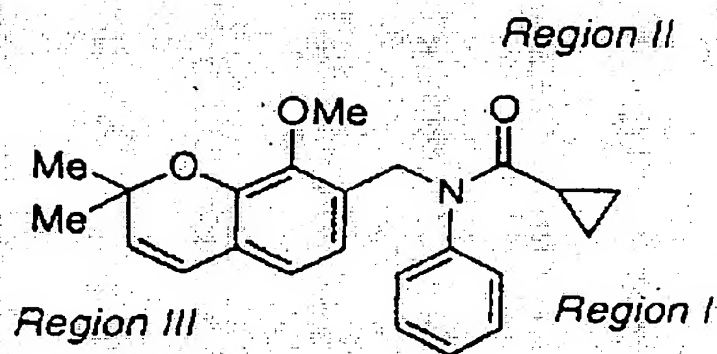


FIGURE 4

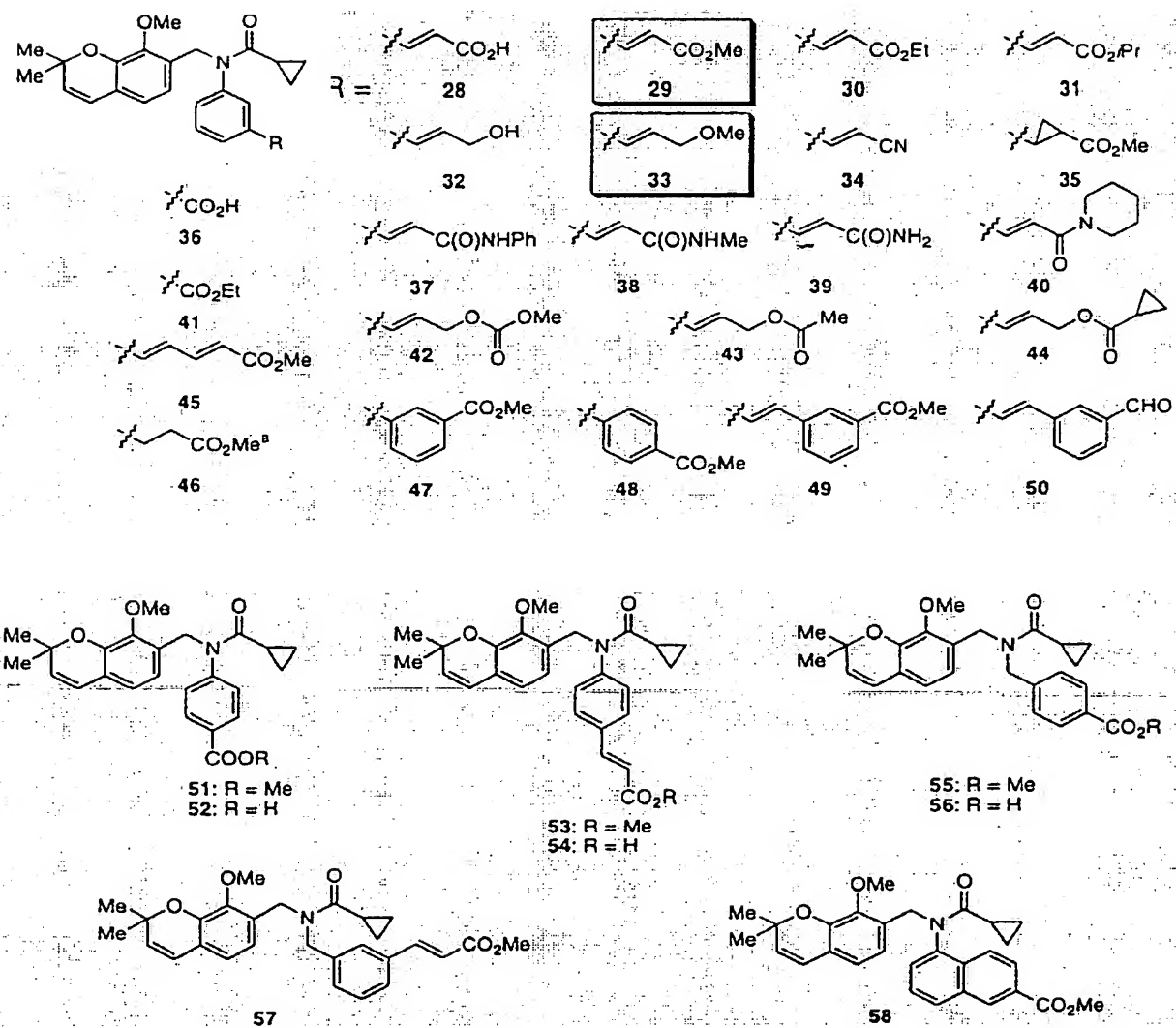


FIGURE 5

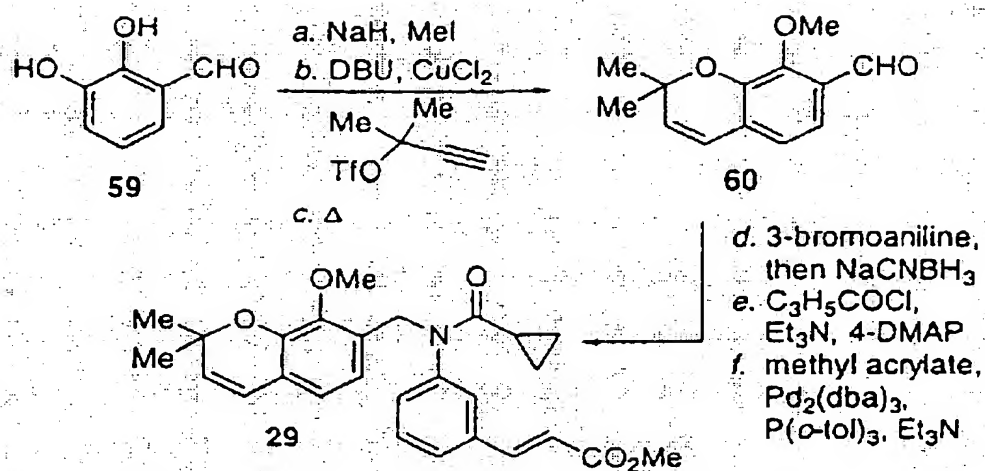


FIGURE 6

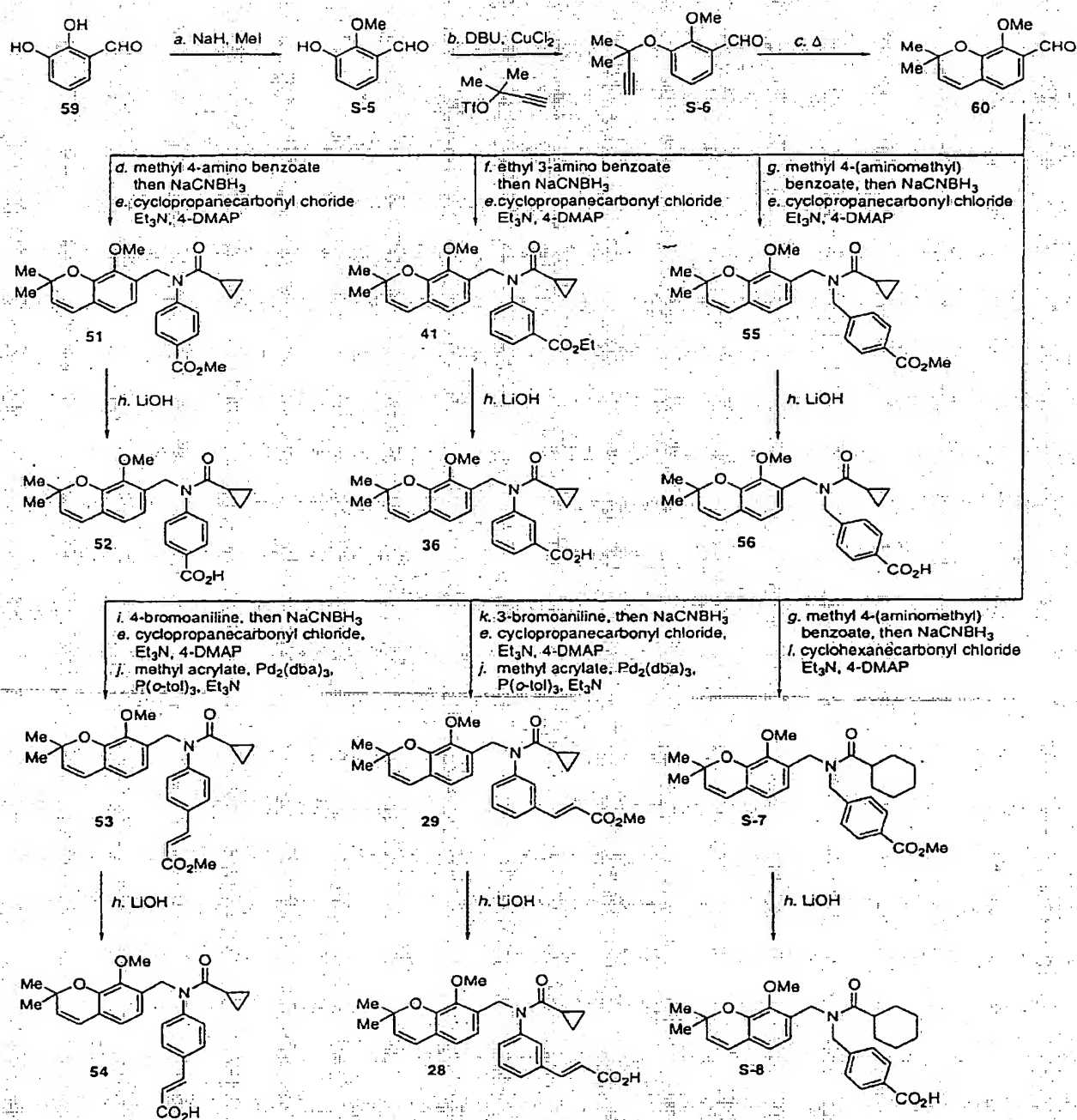


FIGURE 7

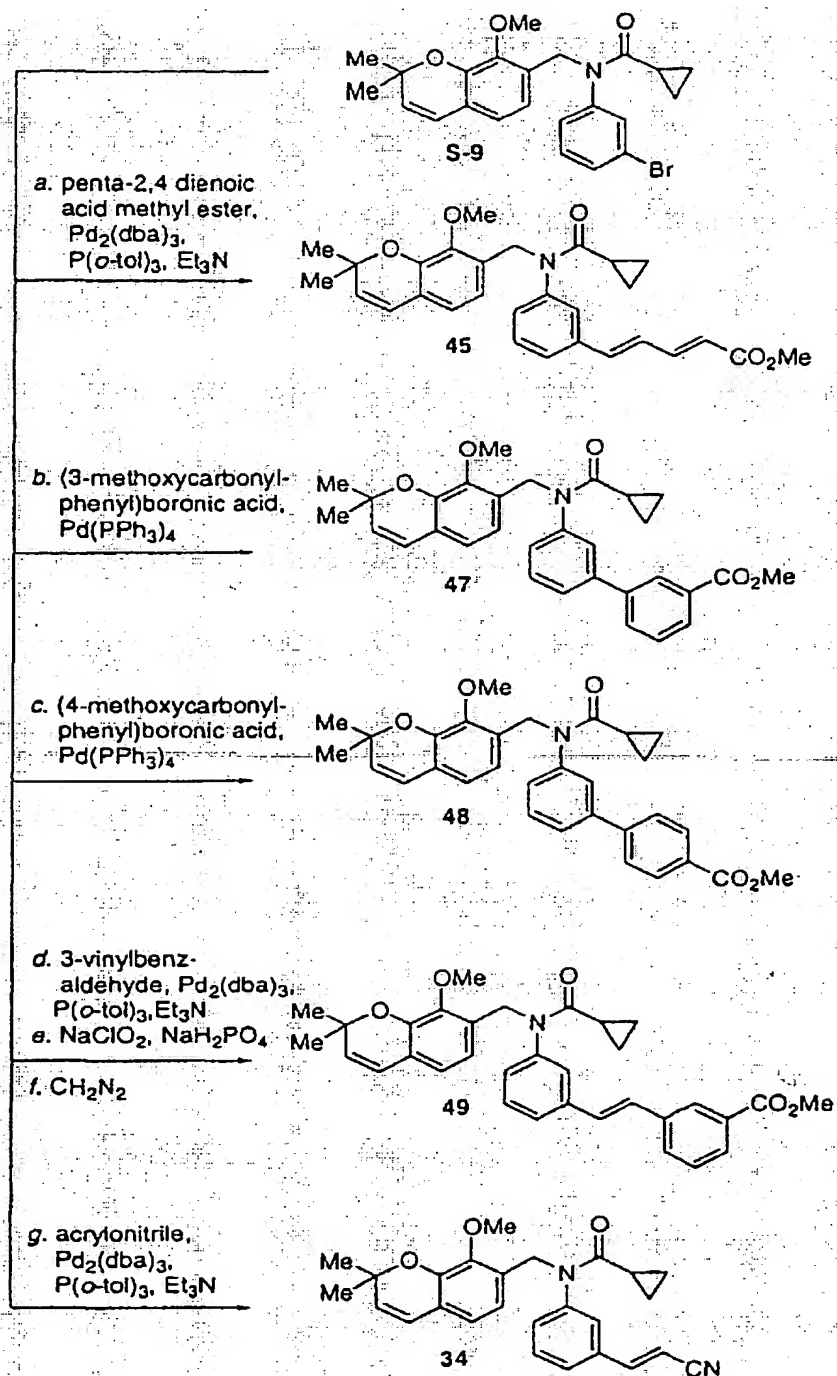


FIGURE 8

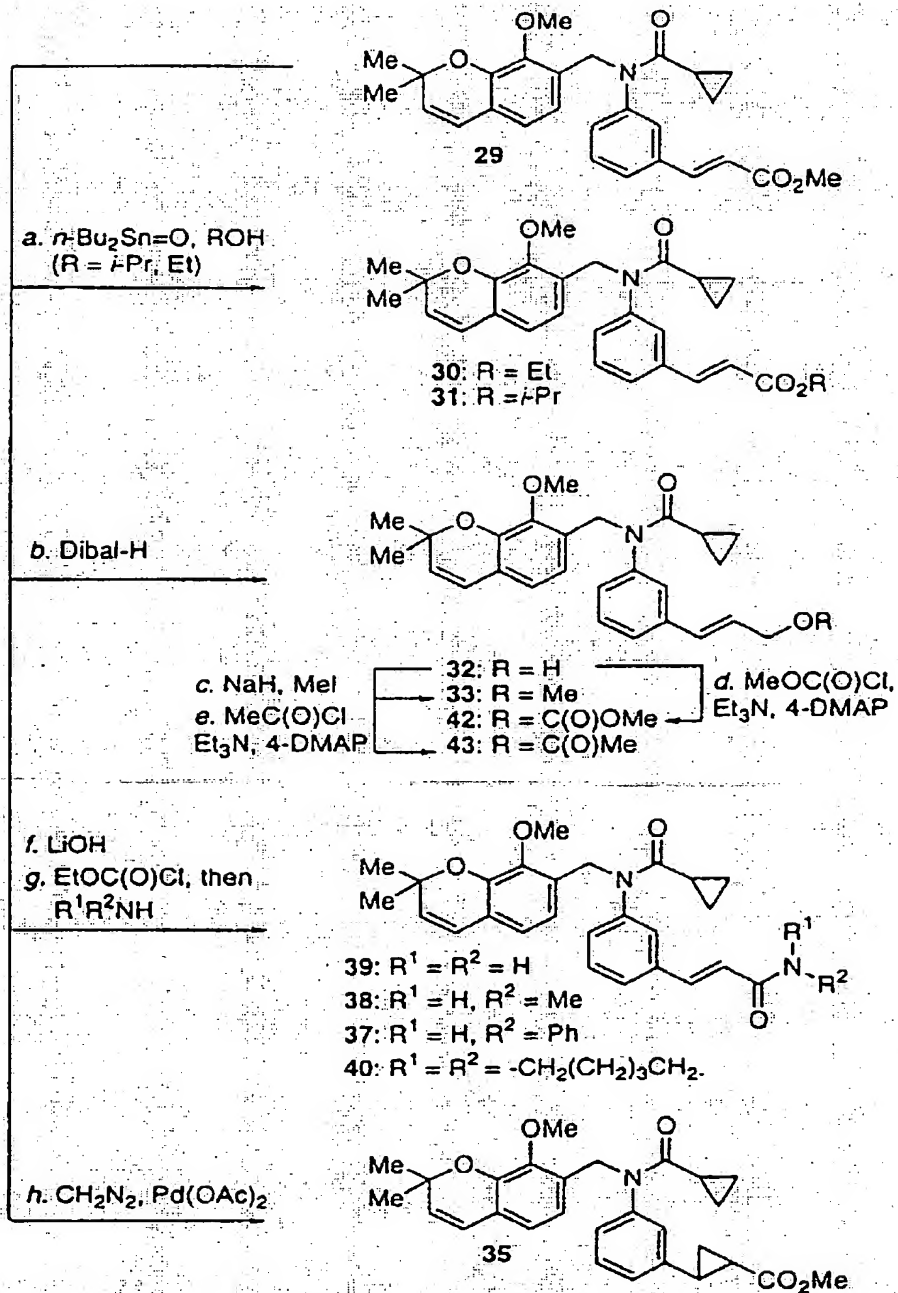


FIGURE 9

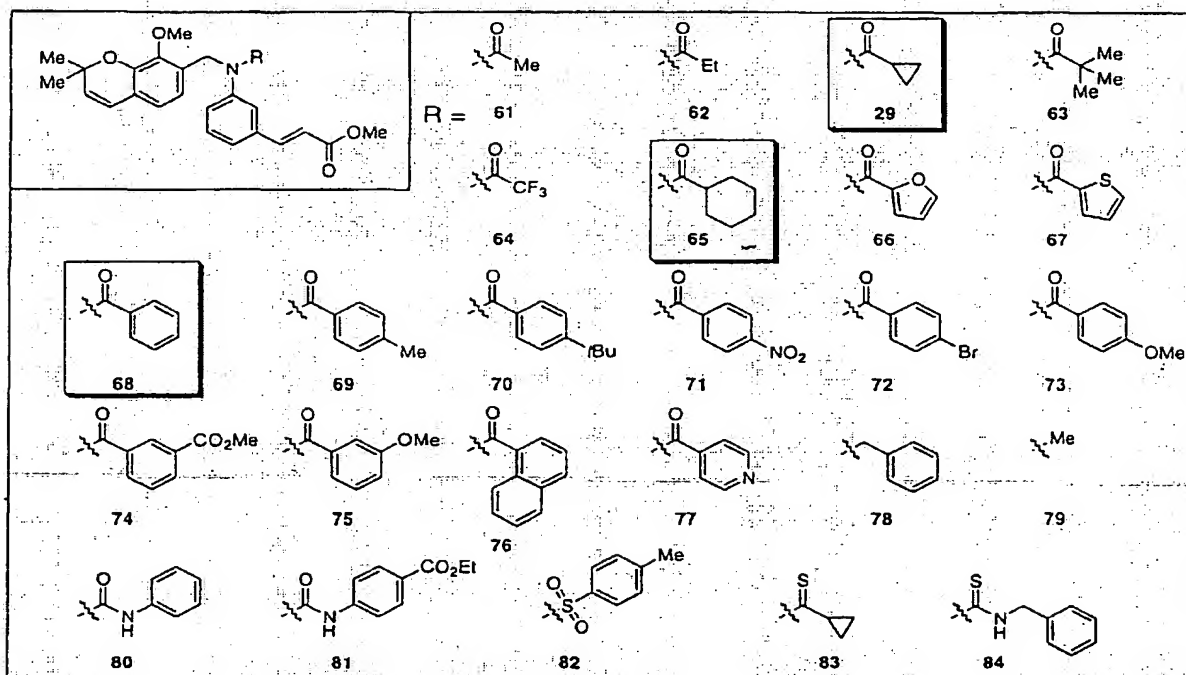


FIGURE 10

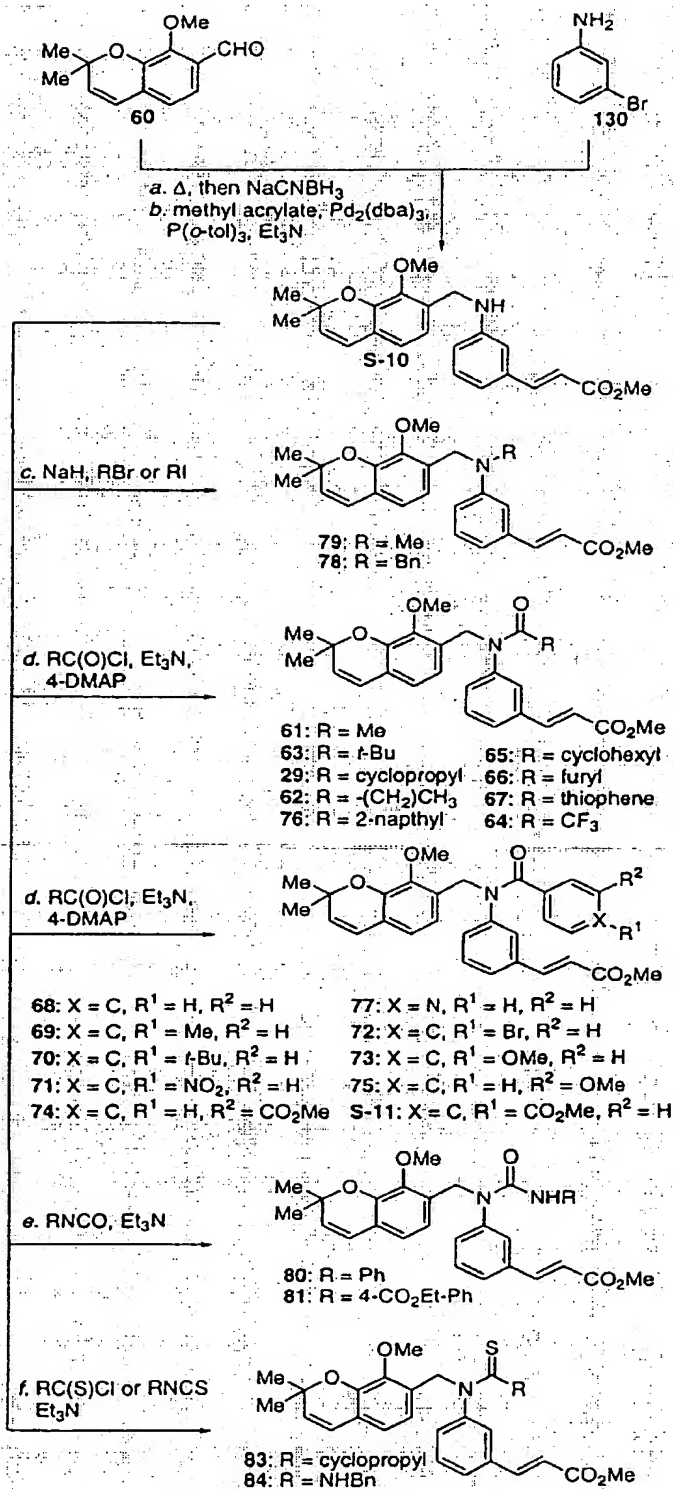


FIGURE 11

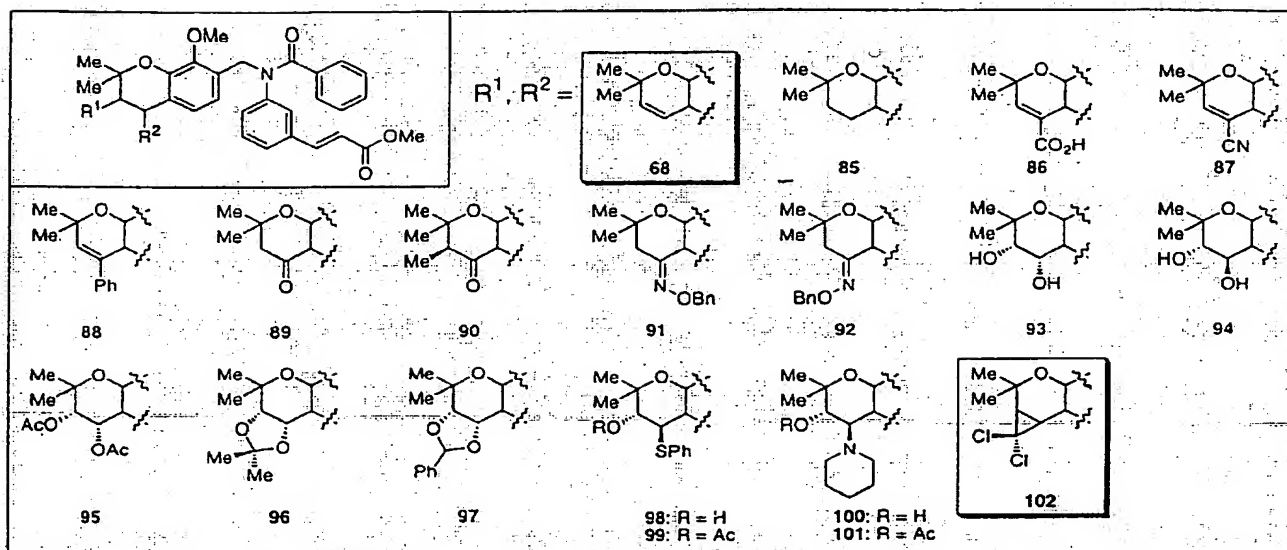


FIGURE 12

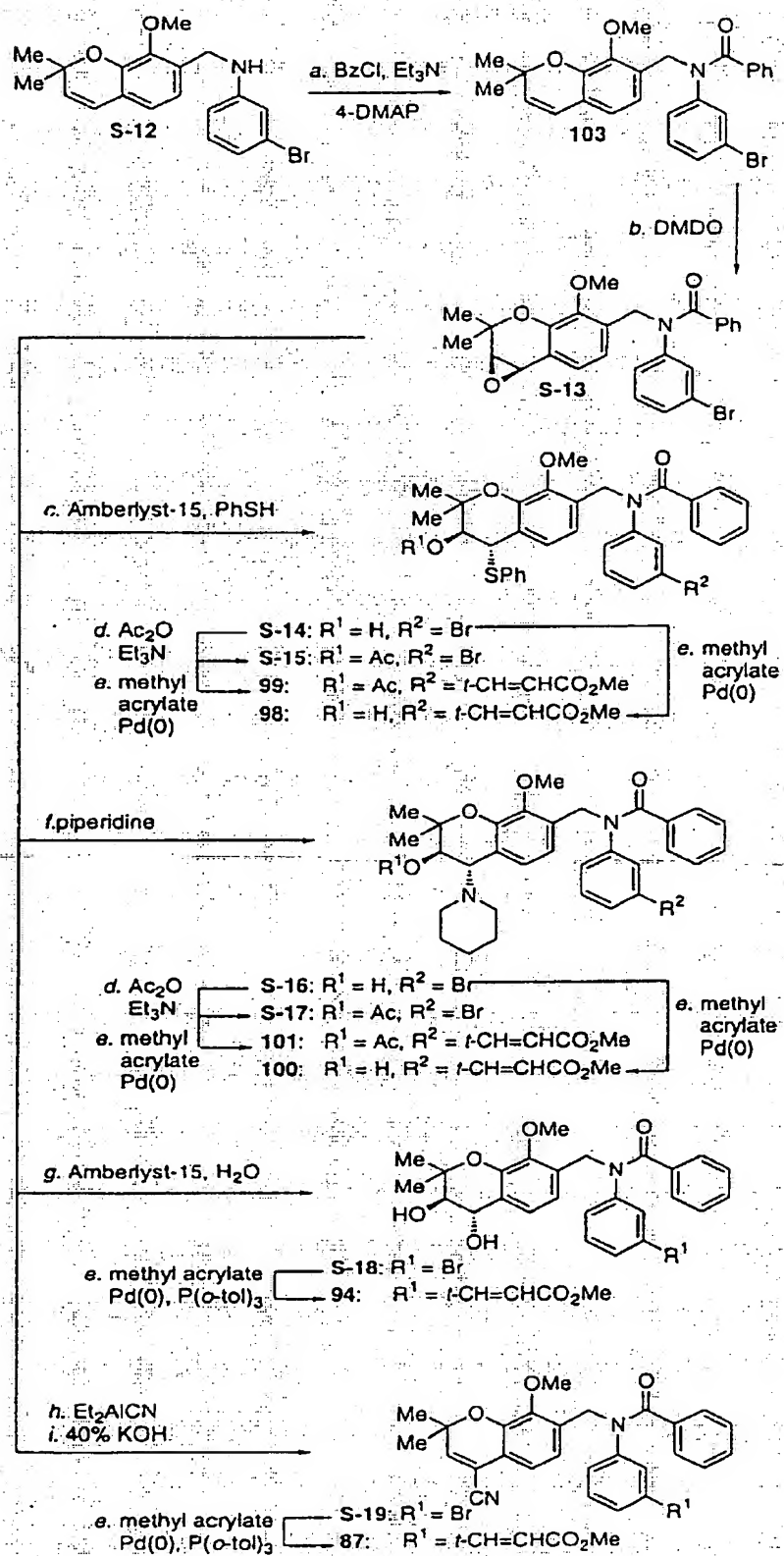


FIGURE 13

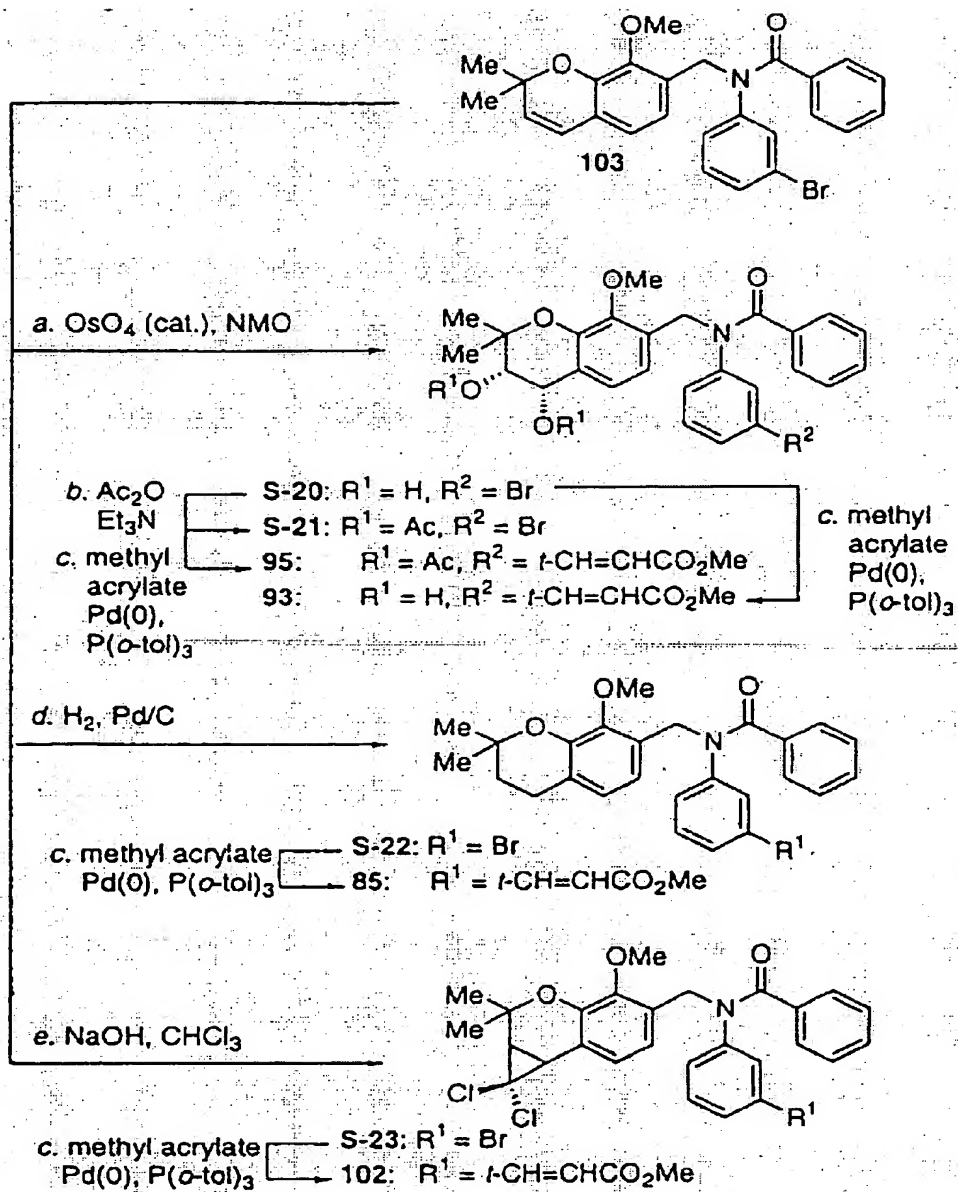


FIGURE 14

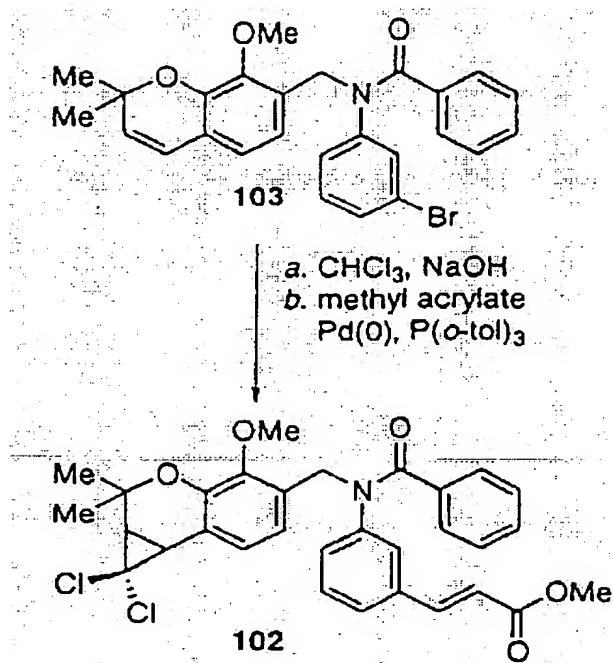


FIGURE 15

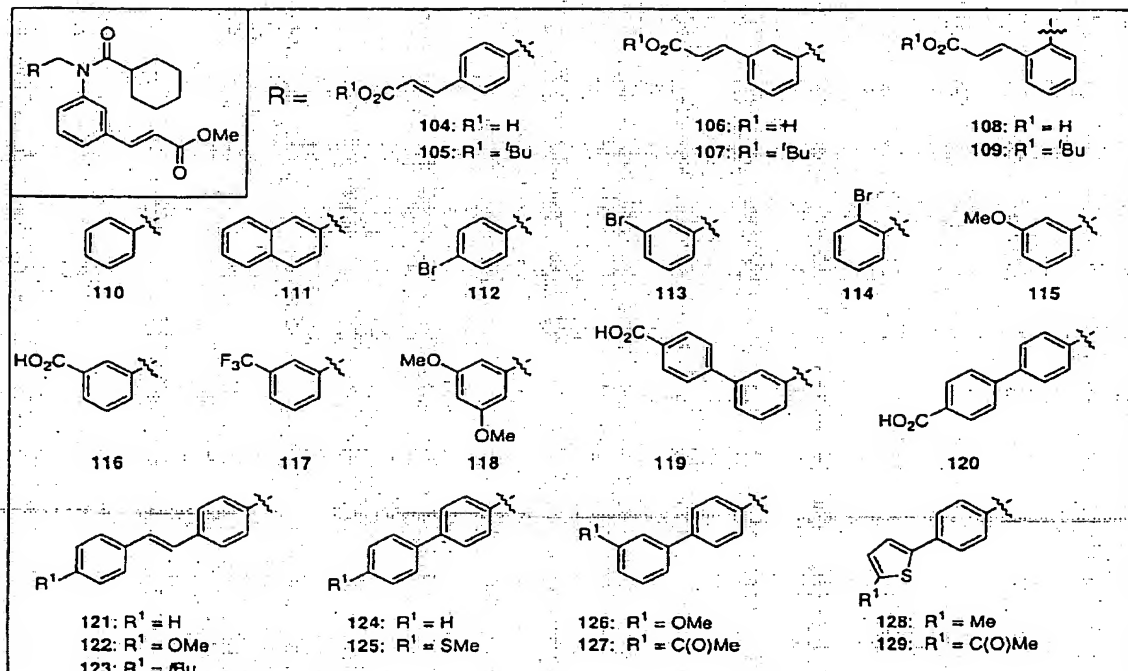


FIGURE 16

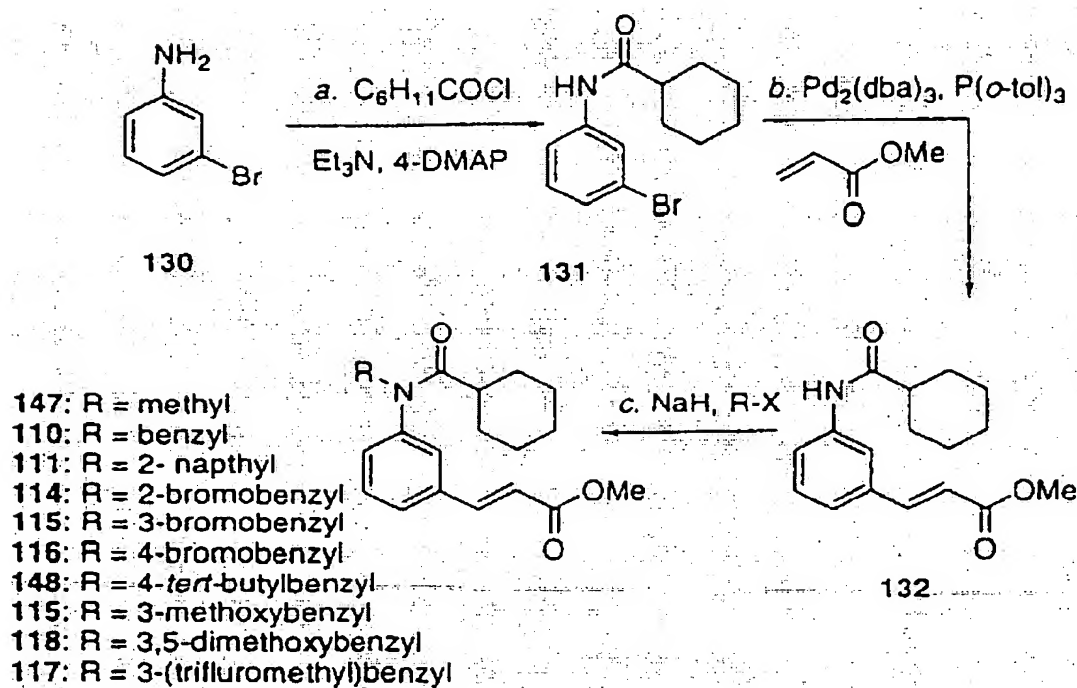


FIGURE 17

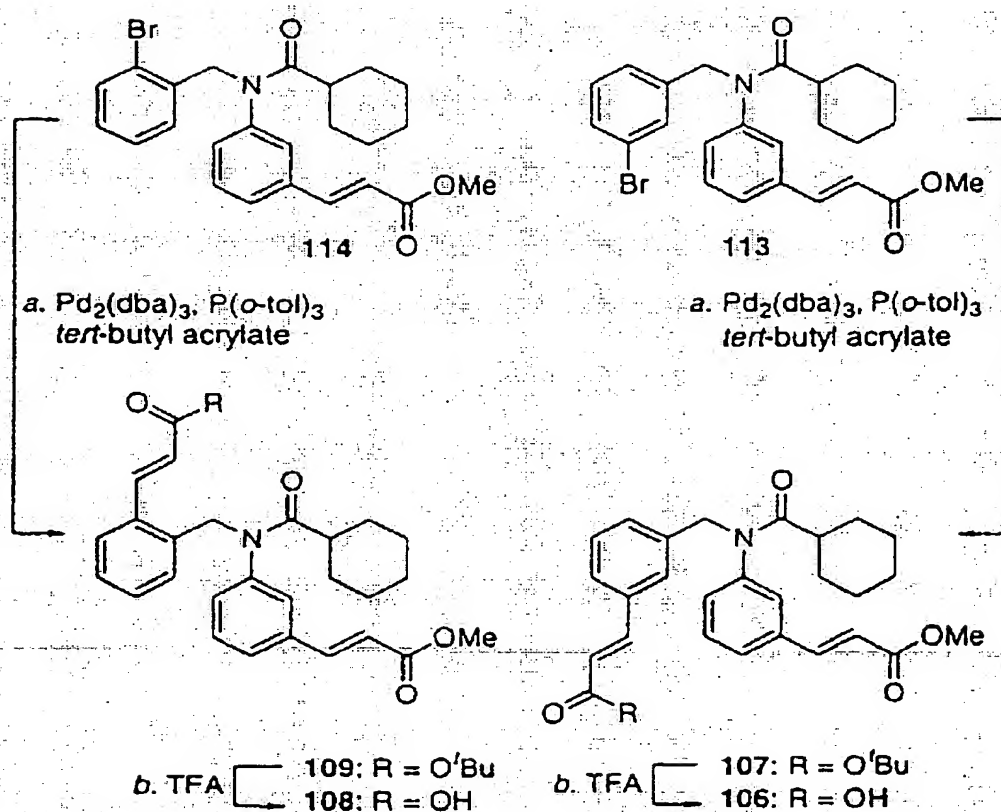
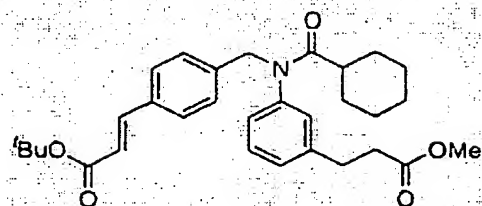
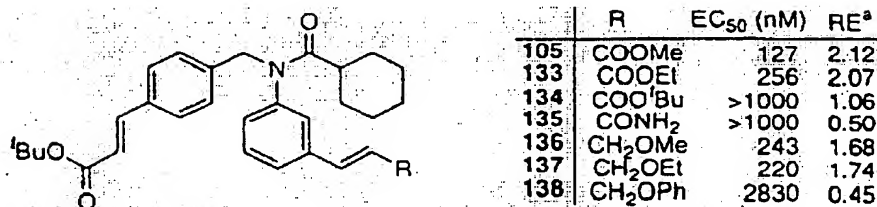


FIGURE 18



139: EC₅₀ = 274 nM
RE^a = 1.38.

FIGURE 19A

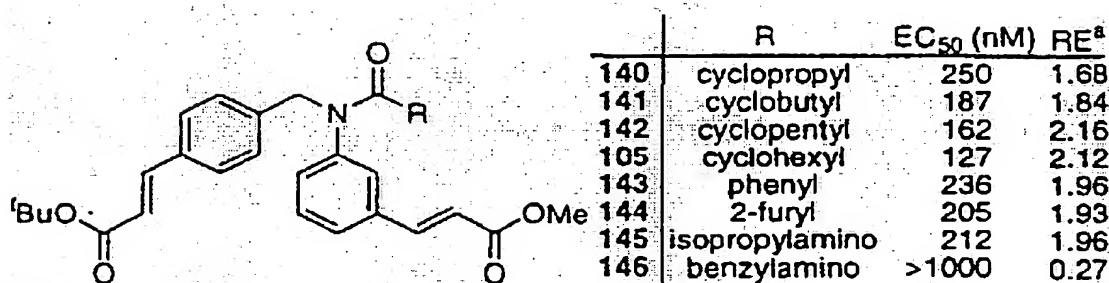


FIGURE 19B

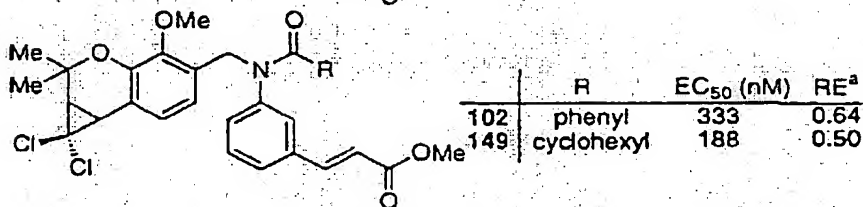
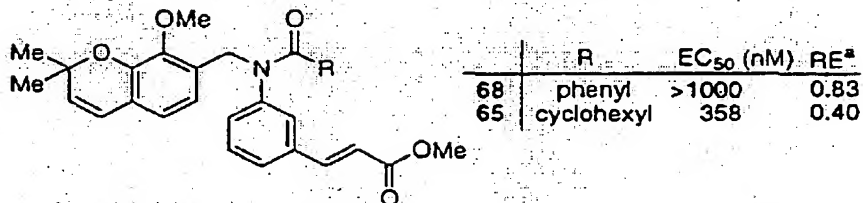
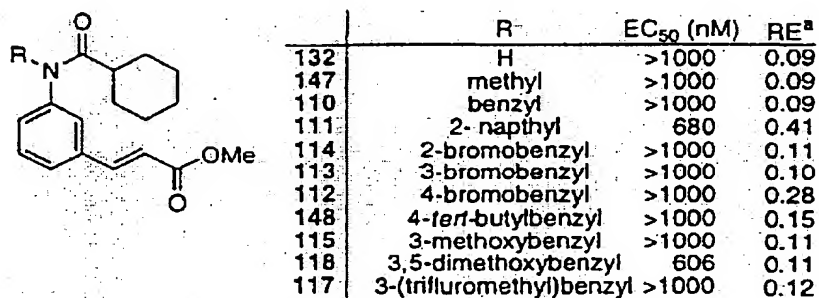


FIGURE 19C

	R	EC ₅₀ (nM)	RE ^a		
	104	COOH	>1000	0.08	
	150	COOMe	>1000	0.87	
	151	COOEt	>1000	1.14	
	152	COOPr	163	1.97	
	105	COOBu	127	2.12	
	153	COOBn	>1000	0.23	
	154	CONMe ₂	>1000	0.66	
	155	CONH ^t Bu	>1000	1.65	
	156	CH ₂ OMe	233	1.63	
	157	CH ₂ OEt	198	2.06	
158	CH ₂ OPh	>1000	0.64		
	159	COOMe	240	1.56	
	160	COOBu	>1000	0.64	
	161	H	>1000	0.12	
	162	Me	>1000	0.14	
	163	Bn	>1000	0.38	
	164	MeC(O)	>1000	0.16	
	165	C ₆ H ₅ C(O)	>1000	0.16	
	166	MeS(O ₂)	>1000	0.18	
	167	EtOOCCH ₂	>1000	0.18	
	127	OMe	H	77	1.51
	125	C(O)Me	H	227	1.30
	125	H	SMe	69	1.74
	124	H	H	510	0.71
	124	H	H	510	0.71
	128	Me	206	1.78	
	129	C(O)Me	256	1.48	
	121	H	36	1.55	
	122	OMe	208	1.67	
	123	t-Bu	>1000	0.29	
	123	t-Bu	>1000	0.29	

FIGURE 19D

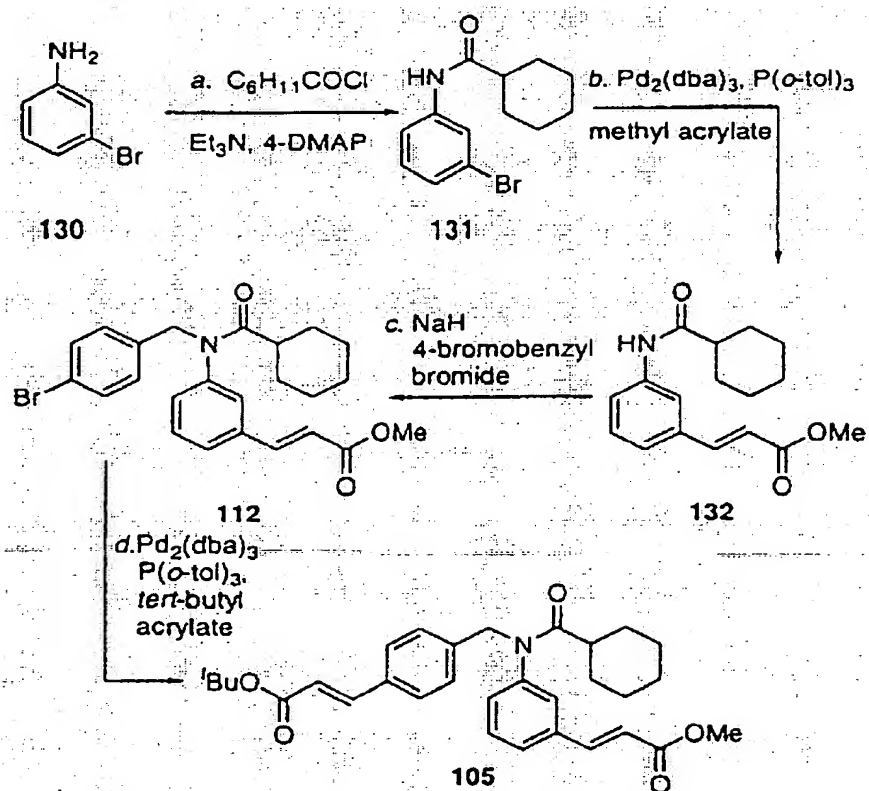


FIGURE 20

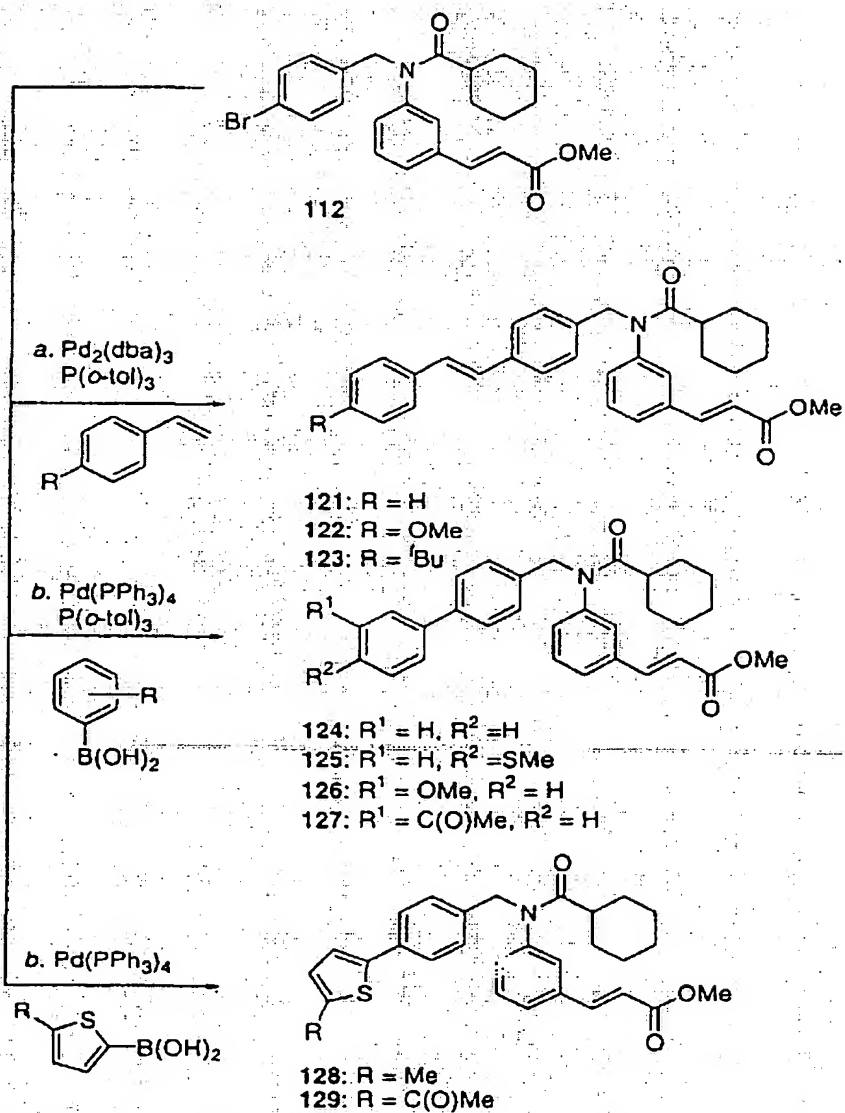


FIGURE 21

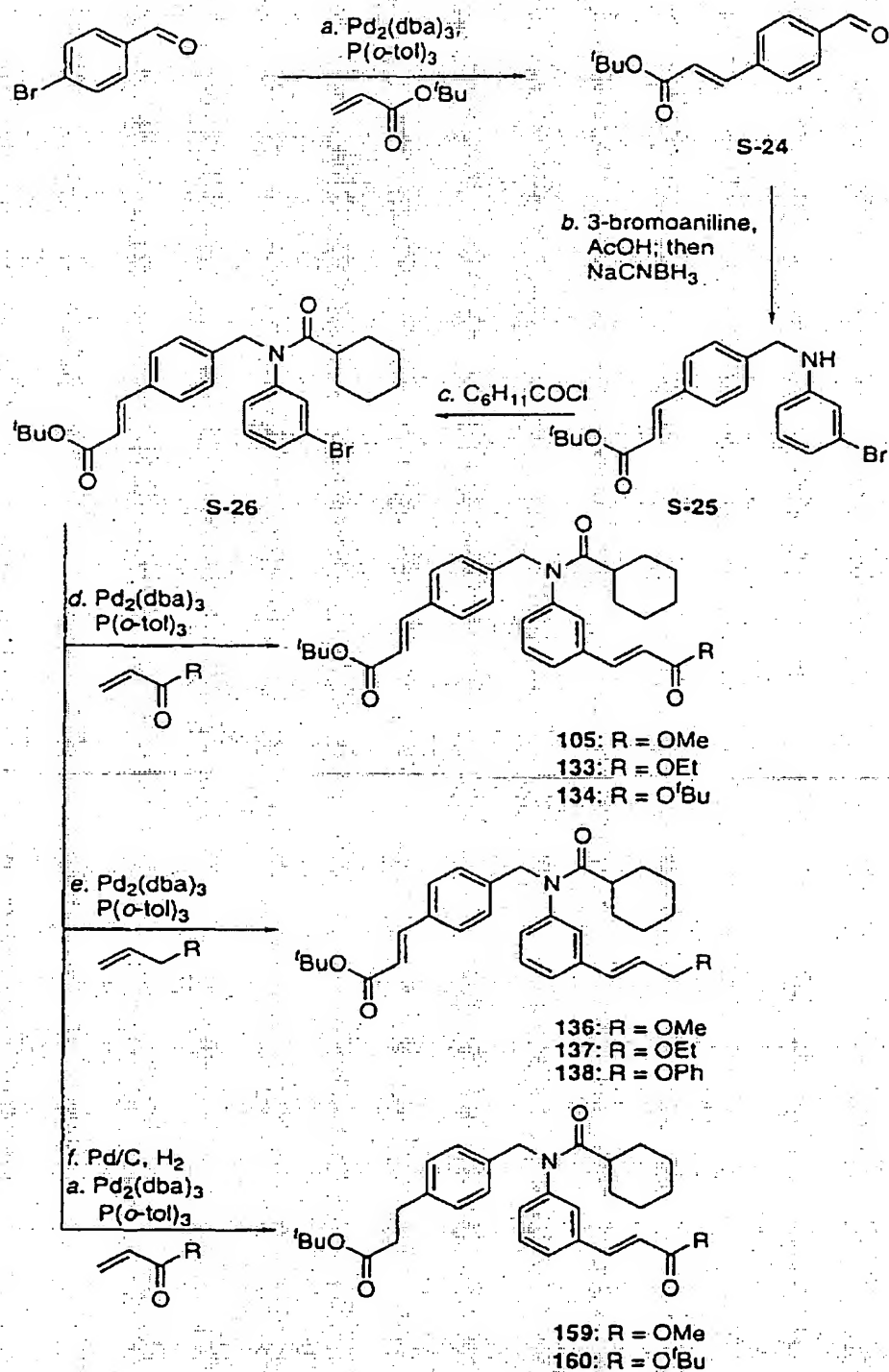


FIGURE 22

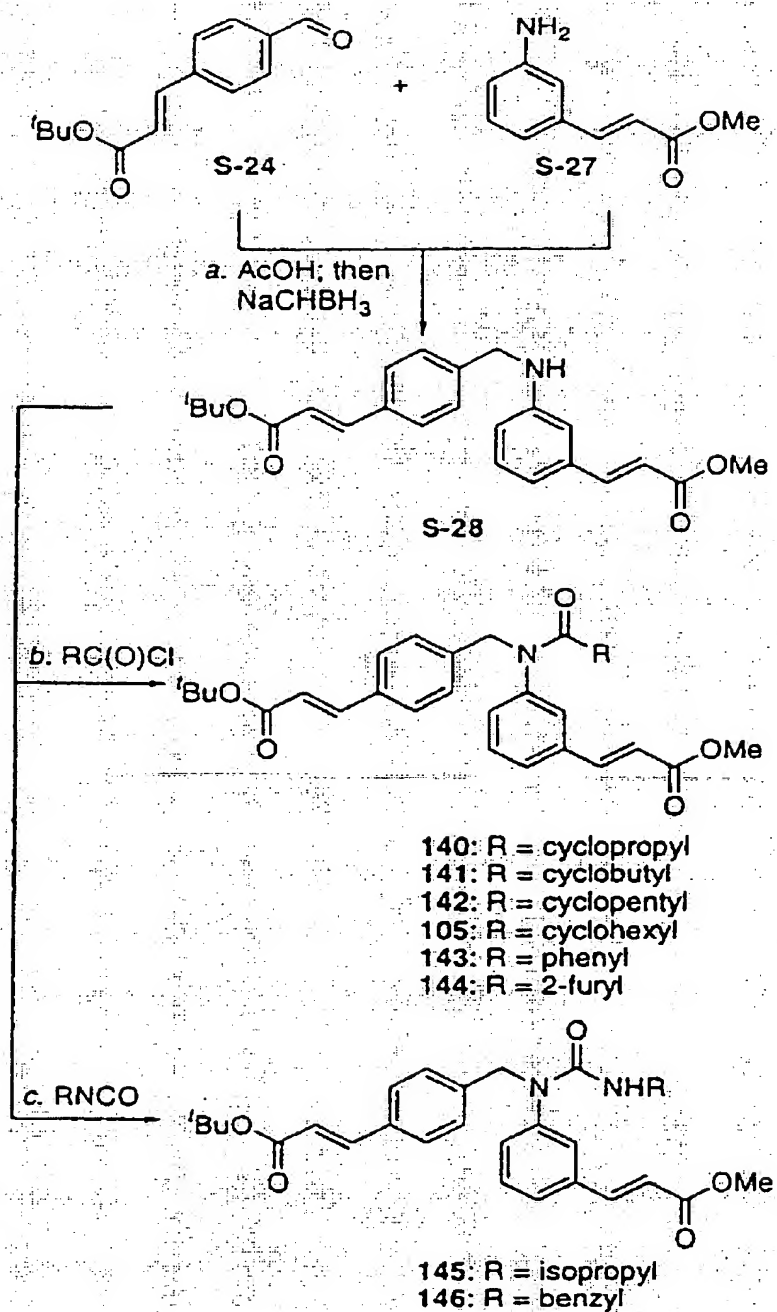


FIGURE 23

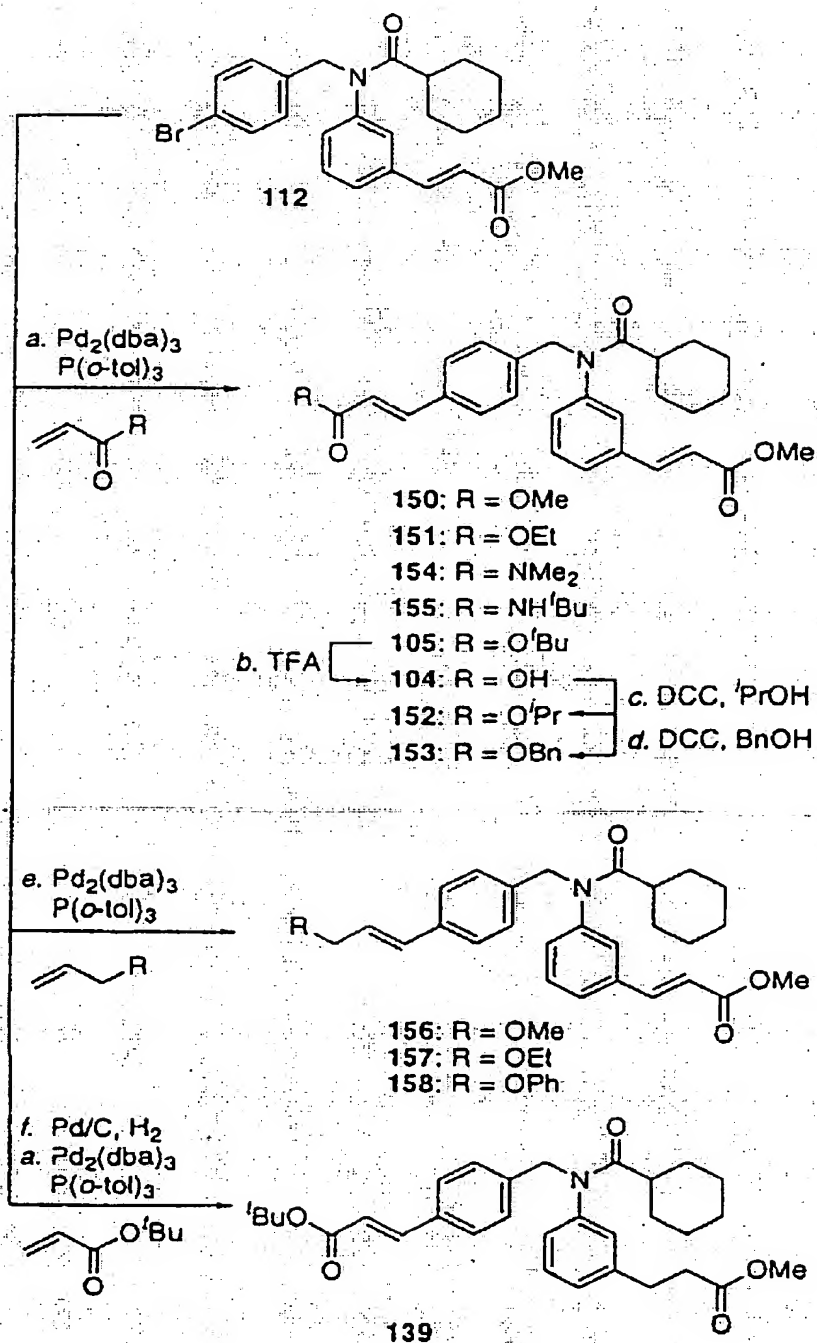
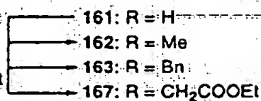
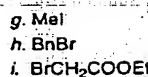
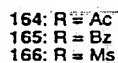


FIGURE 24

**FIGURE 25**

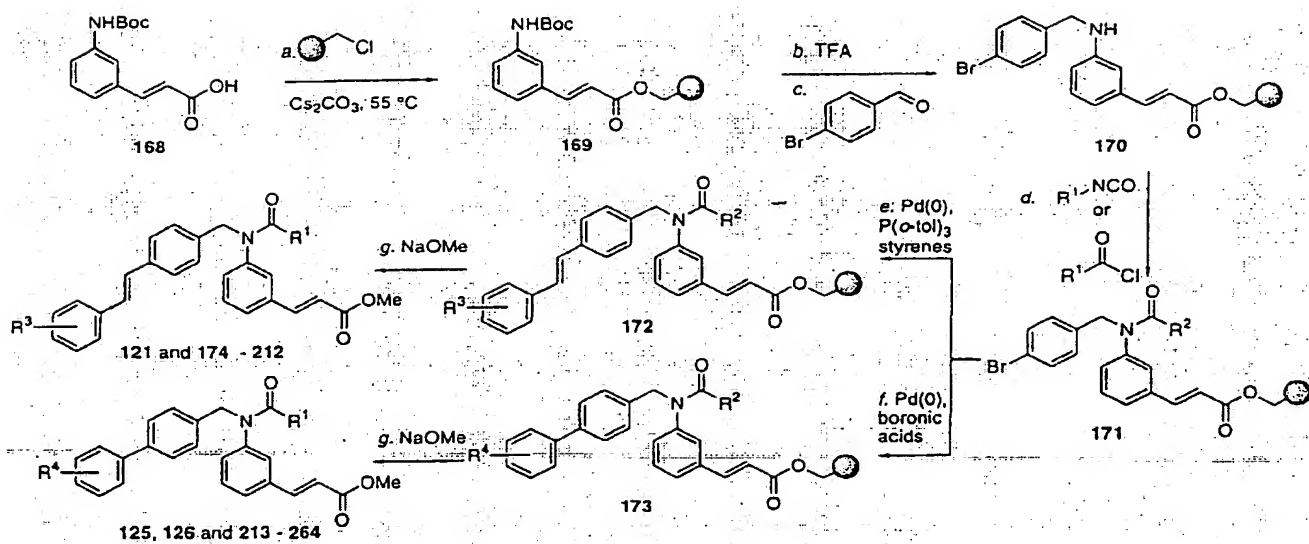


FIGURE 26

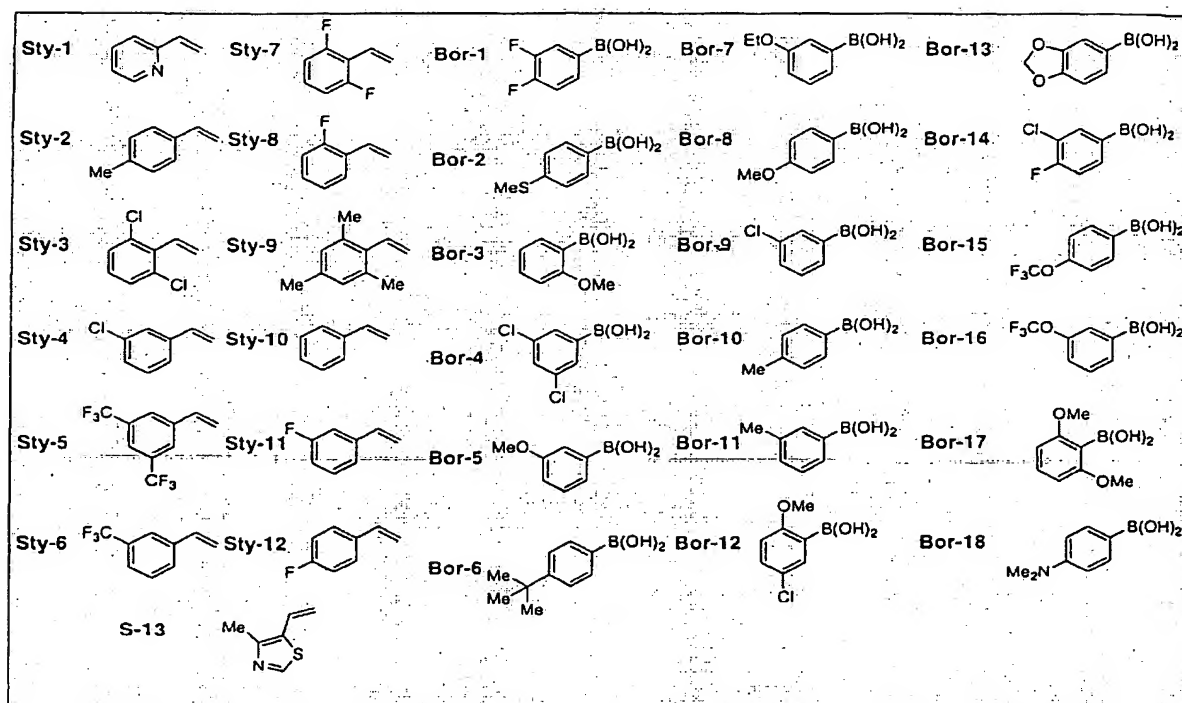
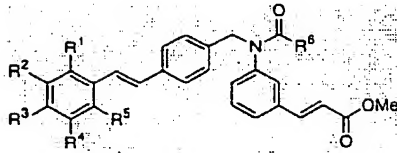
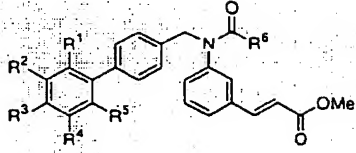
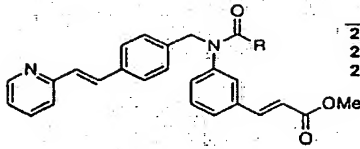


FIGURE 27

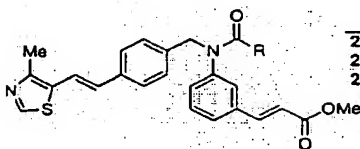




	R ¹	R ²	R ³	R ⁴	R ⁵	R ⁶	EC ₅₀ (nM)	RE ^a		R ¹	R ²	R ³	R ⁴	R ⁵	R ⁶	EC ₅₀ (nM)	RE ^a
174	H	H	Me	H	H	-C ₆ H ₁₁	342	0.83	213	H	F	F	H	H	-C ₆ H ₁₁	72	1.70
175	H	H	Me	H	H	-CH(CH ₃) ₂	1410	0.37	214	H	F	F	H	H	-CH(CH ₃) ₂	249	1.15
176	H	H	Me	H	H	-NHCH(CH ₃) ₂	3570	0.10	215	H	F	F	H	H	-NHCH(CH ₃) ₂	8180	0.23
177	Cl	H	H	H	Cl	-C ₆ H ₁₁	150	0.12	125	H	H	SMe	H	H	-C ₆ H ₁₁	69	1.74
178	Cl	H	H	H	Cl	-CH(CH ₃) ₂	195	0.14	216	H	H	SMe	H	H	-CH(CH ₃) ₂	51	0.98
179	Cl	H	H	H	Cl	-NHCH(CH ₃) ₂	216	0.15	217	H	H	SMe	H	H	-NHCH(CH ₃) ₂	178	0.23
180	H	Cl	H	H	H	-C ₆ H ₁₁	165	1.41	218	OMe	H	H	H	H	-C ₆ H ₁₁	358	0.49
181	H	Cl	H	H	H	-CH(CH ₃) ₂	164	1.09	219	OMe	H	H	H	H	-CH(CH ₃) ₂	377	0.28
182	H	Cl	H	H	H	-NHCH(CH ₃) ₂	339	0.59	220	OMe	H	H	H	H	-NHCH(CH ₃) ₂	4010	0.09
183	H	CF ₃	H	CF ₃	H	-C ₆ H ₁₁	1470	0.15	126	H	Cl	H	Cl	H	-C ₆ H ₁₁	284	0.95
184	H	CF ₃	H	CF ₃	H	-CH(CH ₃) ₂	1950	0.13	221	H	Cl	H	Cl	H	-CH(CH ₃) ₂	661	0.54
185	H	CF ₃	H	CF ₃	H	-NHCH(CH ₃) ₂	1830	0.13	222	H	Cl	H	Cl	H	-NHCH(CH ₃) ₂	>10000	0.10
186	H	CF ₃	H	H	H	-C ₆ H ₁₁	937	0.35	223	H	OMe	H	H	H	-C ₆ H ₁₁	101	1.51
187	H	CF ₃	H	H	H	-CH(CH ₃) ₂	267	0.70	224	H	OMe	H	H	H	-CH(CH ₃) ₂	72	1.26
188	H	CF ₃	H	H	H	-NHCH(CH ₃) ₂	932	0.31	225	H	OMe	H	H	H	-NHCH(CH ₃) ₂	1370	0.41
189	F	H	H	H	F	-C ₆ H ₁₁	174	0.94	226	H	OEt	H	H	H	-C ₆ H ₁₁	147	1.37
190	F	H	H	H	F	-CH(CH ₃) ₂	108	0.79	227	H	OEt	H	H	H	-CH(CH ₃) ₂	173	1.03
191	F	H	H	H	F	-NHCH(CH ₃) ₂	4020	0.21	228	H	OEt	H	H	H	-NHCH(CH ₃) ₂	2350	0.33
192	F	H	H	H	H	-C ₆ H ₁₁	64	1.41	229	H	H	OMe	H	H	-C ₆ H ₁₁	89	1.71
193	F	H	H	H	H	-CH(CH ₃) ₂	70	1.17	230	H	H	OMe	H	H	-CH(CH ₃) ₂	97	1.21
194	F	H	H	H	H	-NHCH(CH ₃) ₂	431	0.69	231	H	H	OMe	H	H	-NHCH(CH ₃) ₂	144	1.16
195	Me	H	Me	H	Me	-C ₆ H ₁₁	518	0.24	232	H	Cl	H	H	H	-C ₆ H ₁₁	94	1.58
196	Me	H	Me	H	Me	-CH(CH ₃) ₂	149	0.30	233	H	Cl	H	H	H	-CH(CH ₃) ₂	77	1.52
197	Me	H	Me	H	Me	-NHCH(CH ₃) ₂	431	0.14	234	H	Cl	H	H	H	-NHCH(CH ₃) ₂	1400	0.49
121	H	H	H	H	H	-C ₆ H ₁₁	36	1.55	235	H	H	Me	H	H	-C ₆ H ₁₁	26	1.38
198	H	H	H	H	H	-CH(CH ₃) ₂	65	1.33	236	H	H	Me	H	H	-CH(CH ₃) ₂	118	1.48
200	H	H	H	H	H	-NHCH(CH ₃) ₂	119	1.38	237	H	H	Me	H	H	-NHCH(CH ₃) ₂	449	0.80
201	H	F	H	H	H	-C ₆ H ₁₁	86	1.36	238	H	Me	H	H	H	-C ₆ H ₁₁	109	1.43
202	H	F	H	H	H	-CH(CH ₃) ₂	71	1.33	239	H	Me	H	H	H	-CH(CH ₃) ₂	163	1.09
203	H	F	H	H	H	-NHCH(CH ₃) ₂	467	0.61	240	H	Me	H	H	H	-NHCH(CH ₃) ₂	1330	0.53
204	H	H	F	H	H	-C ₆ H ₁₁	185	0.53	241	OMe	H	H	Cl	H	-C ₆ H ₁₁	233	1.16
205	H	H	F	H	H	-CH(CH ₃) ₂	120	1.19	242	OMe	H	H	Cl	H	-CH(CH ₃) ₂	226	0.79
206	H	H	F	H	H	-NHCH(CH ₃) ₂	348	0.91	243	OMe	H	H	Cl	H	-NHCH(CH ₃) ₂	3080	0.17
									244	H	-OCH ₂ O-	H	H	H	-C ₆ H ₁₁	38	1.90
									245	H	-OCH ₂ O-	H	H	H	-CH(CH ₃) ₂	19	1.25
									246	H	-OCH ₂ O-	H	H	H	-NHCH(CH ₃) ₂	96	1.51
									247	H	Cl	F	H	H	-C ₆ H ₁₁	68	1.87
									248	H	Cl	F	H	H	-CH(CH ₃) ₂	129	1.64
									249	H	Cl	F	H	H	-NHCH(CH ₃) ₂	3050	0.41
									250	H	H	OCF ₃	H	H	-C ₆ H ₁₁	264	1.04
									251	H	H	OCF ₃	H	H	-CH(CH ₃) ₂	219	0.78
									252	H	H	OCF ₃	H	H	-NHCH(CH ₃) ₂	7530	0.21
									253	H	OCF ₃	H	H	H	-C ₆ H ₁₁	420	0.84
									254	H	OCF ₃	H	H	H	-CH(CH ₃) ₂	247	0.69
									255	H	OCF ₃	H	H	H	-NHCH(CH ₃) ₂	>10000	0.09
									256	OMe	H	H	H	OMe	-C ₆ H ₁₁	77	0.12
									257	OMe	H	H	H	OMe	-CH(CH ₃) ₂	95	0.10
									258	OMe	H	H	H	OMe	-NHCH(CH ₃) ₂	561	0.10
									259	H	H	NMe ₂	H	H	-C ₆ H ₁₁	25	1.72
									260	H	H	NMe ₂	H	H	-CH(CH ₃) ₂	57	1.07
									261	H	H	NMe ₂	H	H	-NHCH(CH ₃) ₂	162	1.01
									262	H	H	t-Bu	H	H	-C ₆ H ₁₁	132	1.38
									263	H	H	t-Bu	H	H	-CH(CH ₃) ₂	343	0.59
									264	H	H	t-Bu	H	H	-NHCH(CH ₃) ₂	262	1.02



R	EC ₅₀ (nM)	RE ^a
207	309	0.81
208	310	0.62
209	575	0.66



R	EC ₅₀ (nM)	RE ^a
210	227	0.53
211	228	0.32
212	366	0.42

FIGURE 28

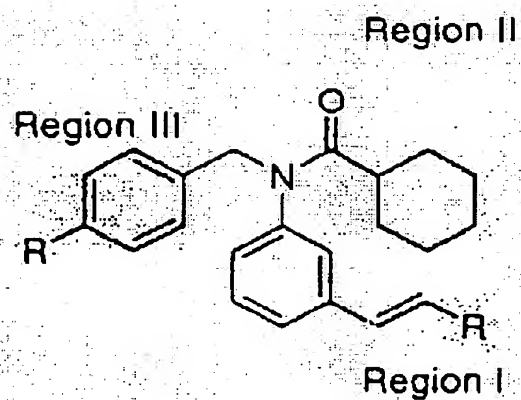


FIGURE 29

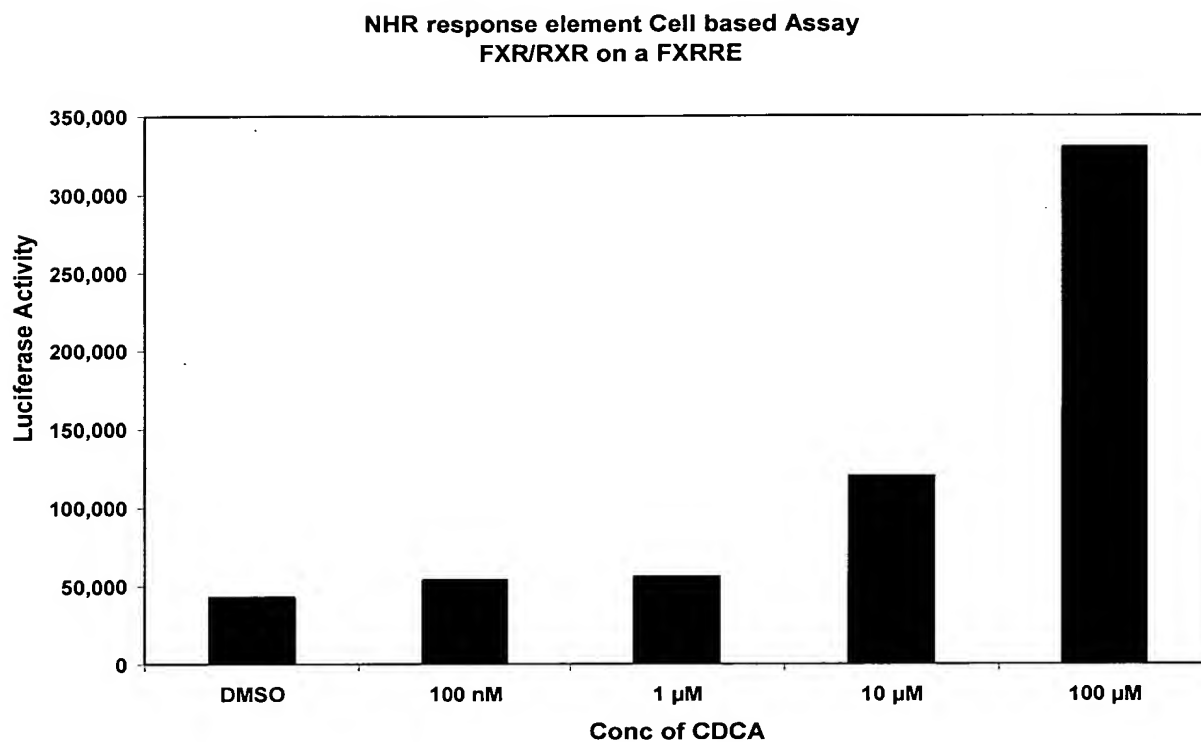


FIGURE 30